E 1
8/1/01

COVINGTON & BURLING

1201 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20004-2401
TEL 202.662.6000
FAX 202.662.6291
WWW.COV.COM

WASHINGTON, DC
NEW YORK
LONDON
BRUSSELS
SAN FRANCISCO

J. T. SMITH, II
TEL 202.662.5555
FAX 202.778.5555
JTSMITH@COV.COM

August 1, 2001

Cathleen Martwick
Associate Regional Counsel
U.S. Environmental Protection Agency
Region V - C14J
77 West Jackson Blvd.
Chicago, IL 606043590

Dear Cathy:

I am advised that Kerr-McGee has forwarded to Fred Micke a short report on the limited investigation it conducted at DuSable Park. Attached for your information is a copy of that report -- minus the detailed data that is contained in attachments to the report sent Fred.

Sincerely,

John T. Smith II

DuSable Park

Chicago, IL

Surface Gamma Survey and Diagnostic Sampling

June 15th & July 3rd, 2001

Prepared by:

Kerr-McGee Chemical LLC
Bernie Bono, Senior Staff Engineer
July 31, 2001

Surface Gamma Survey

On 6/15/01, Kerr-McGee personnel performed a surface gamma walkover survey in three areas corresponding to the highest activity areas shown on the USEPA's gamma survey drawing for the property. The Site was laid out in a 10-meter grid using a steel tape, with the northern sheet pile wall along Ogden Slip as a baseline. A map showing the surface locations and gamma survey results is attached to this summary.

A surface radiological survey was performed using the procedure described in Kerr-McGee Standard Operating Procedure (SOP) 210 – Gamma Radiological Surveys. A 2-inch by 2-inch NaI gamma detector (#PR 146300) was used with a Ludlum Model 2221 portable scaler ratemeter (#148418). The meter and probe had been previously calibrated for a value of 6,621 counts per minute (cpm) corresponding to 7.2 picoCuries/gram (pCi/g).

The first area (Area A), in the north-central side of the Site, had a maximum surface gamma measurement of 4,900 cpm (5.3 pCi/g). An eighteen-inch diameter hole, approximately one-foot deep was excavated by hand using a shovel. Gamma readings in the hole (with well geometry effect) were 8,100 cpm.

The second area (Area B), in the west-central side of the Site at the end of North Water Street, had a maximum surface gamma measurement of 6,100 cpm (6.6 pCi/g). An eighteen-inch diameter hole, approximately one-foot deep was excavated by hand using a shovel. Gamma readings in the hole (with well geometry effect) were 17,000 cpm.

The third area (Area C), on the south-central side of the Site, had a maximum surface gamma measurement of 4,400 cpm (4.8 pCi/g). An eighteen-inch diameter hole, approximately six-inches deep was excavated by hand using a shovel. Gamma readings in the hole (with well geometry effect) were 10,100 cpm.

The excavated soil from the test pits was carefully placed back into hole and the topsoil/grass cover (Areas A & B) or gravel (Area C) was placed back over the fill soil.

Soil Sampling

On 7/3/01, Kerr-McGee personnel collected one soil sample of the previously excavated material from each of the three identified areas. Soil sampling was performed using the procedure described in Kerr-McGee SOP 214 – Soil Sampling. Samples were collected by hand excavation using a shovel. Approximately four to eight pounds of material was excavated from each area. The samples were placed into individual plastic bags. A sample tracking form was completed. The samples were then transported to Kerr-McGee's West Chicago REF analytical laboratory for radiological analysis. The laboratory results have been attached to this summary.

In Area A, the surface layer consisted of a two-inch thick layer of topsoil with prairie vegetation. This material was placed aside and the soil sample was collected from the next six-inch interval below the root zone. The sampled material consisted of soil, cinders and some brick pieces. The lab results of this sample were 2.6 pCi/g (TH-232 + RA-226).

In Area B, the surface layer also consisted of a two-inch thick layer of topsoil with prairie vegetation. This material was placed aside and the soil sample was collected from the next six-inch interval below the root zone. The sampled material consisted of soil, cinders, clay, debris and some brick pieces. The lab results of this sample were 6.5 pCi/g (TH-232 + RA-226).

In Area C, the surface layer consisted of a two-inch thick layer of dense gravel. This material was placed aside and the soil sample was collected from the next six-inch interval below the gravel. The sampled material consisted of crushed coal (not cinders) and soil. The lab results of this sample were 2.6 pCi/g (TH-232 + RA-226).

At the West Chicago REF laboratory the samples were prepared in accordance with SOP-WCP-364-3 – Sample Preparation Procedure for Gamma Spectral Analysis. The samples were counted in accordance with SOP-WCP-363-2 – Operation and Calibration of the Canberra HPGe Gamma Detector.

The spectral analysis procedure used by the REF laboratory determines the activity of Thorium-232 by measuring the activity of its direct daughter, Actinium-228 (AC-228). Similarly, the activity of Radium-226 is determined by measuring the activity of its direct daughter, Bismuth-214 (BI-214).

File LL2 – 1.4-1-3